

**REPORT TO THE TWENTY-THIRD LEGISLATURE
STATE OF HAWAII
2006**

SOLID WASTE MANAGEMENT

PURSUANT TO SECTION 342G-15, HAWAII REVISED STATUTES
REQUIRING THE OFFICE OF SOLID WASTE MANAGEMENT TO GIVE AN
ANNUAL REPORT ON SOLID WASTE MANAGEMENT

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I. INTRODUCTION

The Office of Solid Waste Management (OSWM) is required to provide an annual report to the legislature to describe the State's progress toward achieving the waste reduction goal. The report also contains general program information about OSWM programs and the counties' solid waste and recycling efforts.

This report covers activities of both the OSWM and the Solid Waste Section (SWS) conducted during the 2004-05 fiscal year. Both organization are contained within segments of the Department of Health's Solid and Hazardous Waste Branch. The SWS is the regulatory entity responsible for permitting and monitoring solid waste facilities within the state, while planning functions are contained within the OSWM. The Office of Solid Waste Management (OSWM) of the SHWB provides technical and programmatic assistance to the counties in their development of solid waste management and recycling programs.

In 1991, the legislature established a waste stream reduction goal of 50% by the year 2000. The OSWM works to enhance the development of county and private recycling programs through a combination of statewide funding mechanisms and statewide guidance and mandates.

II. Solid Waste Management

Hawaii Revised Statute section 342G-2 requires the department and the counties to consider solid waste management practices and methods in the following order of priority:

- 1) Source Reduction
- 2) Recycling (to include composting)
- 3) Landfilling and incineration

The first two practices reduce the amount of waste to be either landfilled or incinerated.

Source reduction also called "waste prevention" means creating less waste. "Reuse", although not included in the list of priorities, means using a product over without first having to reprocess it. The product may be used for its original or intended use, or may be used in a different capacity. "Recycling" is the process by which materials are collected and used as "raw" materials to create new products. Collectively, these methods are sometimes referred to as "waste diversion".

Because waste reduction avoids creation of waste it is inherently difficult to quantify. In some cases, comparisons can be made to waste levels before a waste reduction practice was employed to waste levels afterward. In other cases, an estimate of the amount of waste reduced is all that is possible.

Reuse of products or materials is marginally easier to measure than waste reduction. Because it involves actual material, it is possible to quantify reuse. Quantification can be made in numerous ways including counting number of individual product units or measuring its tonnage.

However, effectively measuring reuse is still difficult because it takes place at so many levels and on a widespread scale. For example, many people regularly reuse plastic containers for food storage at home or in the workplace. While this particular activity contributes to overall waste reduction, it is impossible to accurately measure on a wide scale basis. However, some reuse activity is accounted for in the diversion statistics presented in this report. An example of a reuse activity that is quantified is the amount of material that is donated and sold to non-profit organizations such as the Salvation Army or Goodwill Industries.

Recycling is the most easily quantified activity of the waste diversion trio for at least two reasons. First, like reuse, it involves actual material that can be measured. Second, many recycling facilities regularly submit data to the counties for tracking. In addition to that, most recycling facilities are regulated by the Department of Health under solid waste management regulations. This means that recycling statistics are readily available.

The diversion rates presented below are mainly based on data collected by the counties with some Department of Health supplementation. The diversion rate is composed primarily of recycling activity and a small amount of reuse activity.

The State's current diversion rate stands at 31% and is in line with the most recent national statistics. The Environmental Protection Agency's (EPA) data indicates a recycling rate of 30.6% in 2003. The state's goal of 50% waste diversion was set in 1991 and mirrored the EPA's recycling goal at the time. The EPA has since revised its recycling goal of 50% recycling by the year 2000 to 35% by 2005. This change was made in recognition of the fact that states and municipalities needed a broader time frame in which to reach higher waste reduction levels.

Some mainland states and municipalities have taken great strides in increasing recycling rates, while Hawaii's commercial recyclers continue to deal with long standing issues. Most notable is the high cost of shipping to the Far East or the mainland U.S. where most recycling markets are located. Volatility in recycled materials markets, combined with the relatively small amounts of materials generated in Hawaii also continues to challenge recyclers.

Solid Waste Disposal and Diversion Rates

The OSWM reports disposal and diversion rates by aggregating county collected data with data collected under authority of the solid waste program's permitting system. Diversion rates include recycling activity for metals, paper, plastic and greenwaste. The state's fiscal year begins July and ends on June 30.

Waste Diversion Statistics for FY 2004-05

	Disposal (Tons)	Diversion (Tons)	Generation (Tons)	Diversion Rate
Hawaii	225,267	53,110	278,377	19.1%
Maui	163,477	70,507	233,984	30.1%
Oahu*	973,511	524,198	1,497,709	35.0%
Kauai	89,160	4,949	94,109	5.3%
State	1,451,415	652,764	2,104,179	31.0%

* Calendar Year 2004 data

Diversion rates for fiscal years 2001 through 2005

FY	01	02	03**	04**	05**
Hawaii*	2.4%	1.4%	15.1%	15.8%	19.1%
Maui	33.2%	26.9%	34.3%	31.8%	30.1%
Oahu [#]	31.3%	31.0%	31.7%	31.0%	35.0%
Kauai	7.3%	7.6%	19.6%	25.8%	5.3%
State	27.5%	25.2%	29.4%	29.1%	31.0%

*Large fluctuations reflect reporting lapses, rather than lapses in programs. No significant losses have occurred in the State's recycling programs that would be reflected in the data.

**County derived data

[#] Previous calendar year data

III. OFFICE OF SOLID WASTE MANAGEMENT ACTIVITIES

Beverage Container Deposit Program

On January 1, 2005, the beverage container deposit program was fully implemented. Preliminary start-up activities started in September 2002 with the registering of beverage distributors. Collection of container fees began being assessed in October 2002. The department has submitted a separate full program report for the Deposit Beverage Container Program. The Legislative Auditor issued a report on that program on November 28, 2005, and the department's response is included as attachment 2 in that report.

Glass Advance Disposal Fee (ADF) Program

The OSWM administers a statewide glass recovery program that is funded through an advance disposal fee (ADF). The department collects the fee from distributors of products contained in glass containers. The department then contracts with each county to establish glass buy back programs that divert glass from the waste stream and direct it to recycling. As directed by statute, the funds are distributed to the counties based on de facto population. Each county is allowed enough flexibility to structure its glass-recycling program to maximize recycling of the glass.

The Glass ADF Program has been directly affected by implementation of the Container Deposit Program. Beginning October 1, 2004, glass beverage containers were transferred from the purview of the ADF program to that of the Deposit Beverage Container Program, and redemption of deposit containers began on January 1, 2005.

In FY 2004-05 the transfer of glass beverage containers to the deposit program reduced the number of containers covered by the ADF Program by approximately 55%, with a corresponding decrease in program revenue. The start of redemption for deposit containers also affected ADF recovery rates, as recyclers had to adjust their operational procedures in order to segregate ADF product from DBC product.

The department has reduced the amounts of the county contracts in accordance with the decrease in program revenue. Current year (FY2005-06) funding has been reduced by 25%. The department expects ADF revenue to continue its decline through at least the FY2005-06 year before stabilizing. Projections indicated that annual revenue might fall below \$1 million. The department will continue to analyze the impacts of the DBC program on the ADF revenue and recovery rates to determine when equilibrium between the programs has been reached. The department will make whatever adjustments necessary to optimize program performance.

We also note that a transfer of \$2,000,000 was made in December 2004 from the Environmental Management Special Fund (Advanced Glass Disposal Fee portion) fund to the general fund in accordance with Act 52 of the 2004 legislature.

County Recycled Glass Tonnages

FY	01	02	03	04	05
Hawaii	960	1,266	1,585	1,486	1,289
Maui	1,956	2,181	3,078	3,382	2,263
Oahu	10,355	9,945	9,514	9,575	7,796
Kauai	470	588	645	795	754
Total	13,741	13,980	14,822	15,238	12,100

Revenue and Expenditures of the Glass ADF Program:

Glass ADF Revenue

FY	01	02	03	04	05
	\$2,665,120	\$2,753,631	\$3,076,701	\$3,381,455	\$1,500,015

Expenditures for County Collection Programs

FY	01	02	03	04	05
Hawaii	\$216,000	\$216,000	\$283,000	\$298,000	\$298,000
Maui	\$220,000	\$220,000	\$285,000	\$300,000	\$300,000
Oahu	\$1,600,000	\$1,600,000	\$1,570,000	\$1,647,000	\$1,647,000
Kauai	\$112,000	\$112,000	\$127,000	\$134,000	\$134,000
Total	\$2,148,000	\$2,148,000	\$2,265,000	\$2,379,000	\$2,379,000

Motor Vehicle Tire Surcharge Program

Established under HRS Ch. 342I-27 in 2000, the Motor Vehicle Tire Surcharge Program assessed a \$1 surcharge on each motor vehicle tire imported into the state. The program's primary purpose is the clean up of illegal used tire dump sites.

The surcharge took effect on October 1, 2000. In 2002 the legislature, through Act 191, capped the surcharge collections at \$3,000,000. Act 191 also required the Department to waive collection of the \$1 surcharge whenever the funds collected exceeded the \$2,750,000 mark. This mark was reached on June 30, 2003 and collection of the surcharge was halted.

In 2004 the OSWM completed a \$1.2 million contract to clean-up one of the largest known used tire piles in the state located in Maili on Oahu. Authority to collect the fee is set to expire on January 1, 2006 so collections of the tire surcharge will not resume. As of December 2004, the tire fund carried a balance of \$1.3 million. The SWS continues to dedicate staff time to used tire sites and issues. Use of some of the remaining funds for the cleanup of another abandoned used tire site currently under a solid waste enforcement action is a possibility.

Construction & Demolition Waste Minimization and Diversion Outreach

The OSWM continues to conduct compliance assistance to Hawaii's construction industry, which is comprised of general contractors, subcontractors, builders, developers and other interested parties. The purpose is to promote compliance with State illegal dumping laws established in Chapters 342G and 342H, HRS, and Chapter 11-58.1, HAR, "Solid Waste Control". The OSWM occasionally participates in workshops convened by the department's Compliance Assistance Office. The last workshop occurred on July 2005 and had over 100 contractors in attendance. The OSWM also attends monthly meetings conducted by the General Contractor's Association of Hawaii. It also participates in special meetings coordinated by the Buildings Industry Association and other agencies of the State, such as DAGS and the Strategic Industries Division of DBEDT. Over 40 builders and designers were in attendance at the last workshop held in May 2005.

IV. Solid Waste Disposal Surcharge

The Office of Solid Waste Management's primary funding source is the Solid Waste Management Disposal Surcharge, which is often referred to as the "Tip Fee Surcharge". Instituted in 1993 at a rate of 25¢ per ton, and increased to 35¢ per ton in 1997, the surcharge is collected from operators of landfills within the state.

Both functions were originally contained within the OSWM, but were separated through reorganization in 2003. The state's Deposit Beverage Container (DBC) Program is administered by the OSWM. DBC Program personnel and activities are funded through the separate deposit beverage container special fund.

Originally proposed at 75¢ per ton, the fee was initially set by statute at 25¢ per ton in 1993; and subsequently raised to 35¢ in 1997. The disposal surcharge is a common funding mechanism for solid waste management programs across the country. Past research has indicated that seventeen states utilize disposal surcharges to fund solid waste management functions. The average surcharge among that group is \$1.43 per ton, with a high of \$3.00 and a low of \$0.25 per ton.

As indicated in the table below revenue has been relatively stable in the past several years at approximately \$500,000 a year. Both the SWS and OSWM have been able to maintain

operations in the past due to cost savings incurred through position vacancies. However, personnel in both programs are now reaching maximum levels in order to meet workload demands, and the imbalance between revenues and expenditures is becoming a more immediate concern. Program costs, including personnel, now exceed \$600,000 annually.

The shortfall in revenue already limits effectiveness of existing SWS permitting, monitoring and enforcement efforts. The SWS staff of four engineers and four environmental health specialists handle approximately 300 permitted facilities; 100 to 200 permit applications; 200 to 300 solid waste complaints; illegal dumping sites; and numerous miscellaneous inquiries annually. Implementation of the DBC program has contributed to the workload by increasing the number of permitted recycling facilities. Additionally, it prevents the OSWM from undertaking other activities stipulated in statute, which include waste reduction, recycling and market development.

In order for the SWS and OSWM to perform basic functions outlined in statute, the 2000 Revised Integrated Solid Waste Management Plan recommended that the legislature increase program funding by, among other methods, increasing the existing disposal surcharge.

Solid Waste Disposal Surcharge Revenue

FY	01	02	03	04	05
	\$527,968	\$506,775	\$511,870	\$507,255	\$490,850

V. Summary

The statewide recycling rate has steadily increased over the past several years and has just reached 30%.

Fiscal year 2004-05 has brought large-scale changes for both the Solid Waste Section and the Office of Solid Waste Management.

- Full implementation of the Deposit Beverage Container Program leading to more recycling statewide;
- Increased permitting and monitoring workload related to new recycling facilities processing deposit containers;
- Decreased revenue and materials recovered under the Glass Advance Disposal Fee Program.

Limited funding has prevented both the Solid Waste Section and Office of Solid Waste Management from fully carrying out respective functions in the past. Increased workloads and associated staffing levels will increase the seriousness of the situation in the future.